

Application No: 10/669,824
Amendment dated March 25, 2010
Reply to Office action of November 25, 2010

Exhibit A Full length sequence comparison of G3456 and its homologs by Accelrys Gene2.5

Pairwise Matrix: GONNET
Align Speed: Slow
Open Gap Penalty: 10,000
Extended Gap Penalty: .100

Multiple Matrix: GONNET
Multiple Open Gap Penalty: 10,000
Multiple Extended Gap Penalty: .05
Delay Divergent: 30

Gap Separation Distance: 8
End Gap Separation: false
Residue Specific Penalties: false
Hydrophilic Penalties: false
Hydrophilic Residues: GPSNDQEKR

	Percent Identity Matrix	
	G3456	G3401
G3456	100.0	61.5
G3401	61.5	100.0

	Percent Identity Matrix	
	G3456	G2153
G3456	100.0	66.1
G2153	66.1	100.0

	Percent Identity Matrix	
	G3456	G1069
G3456	100.0	60.4
G1069	60.4	100.0

	Percent Identity Matrix	
	G3456	G3460
G3456	100.0	55.5
G3460	55.5	100.0

	Percent Identity Matrix	
	G3456	G3459
G3456	100.0	56.7
G3459	56.7	100.0

Percent Identity Matrix		
	G3456	G1076
G3456	100.0	52.8
G1076	52.8	100.0

Percent Identity Matrix		
	G3456	G3556
G3456	100.0	53.8
G3556	53.8	100.0

Percent Identity Matrix		
	G3456	G3399
G3456	100.0	55.3
G3399	55.3	100.0

Percent Identity Matrix		
	G3456	G2157
G3456	100.0	50.6
G2157	50.6	100.0

Percent Identity Matrix		
	G3456	G3407
G3456	100.0	52.4
G3407	52.4	100.0

Percent Identity Matrix		
	G1073	G3456
G1073	100.0	48.1
G3456	48.1	100.0

Percent Identity Matrix		
	G3456	G3400
G3456	100.0	51.1
G3400	51.1	100.0

Percent Identity Matrix		
	G3456	G1067
G3456	100.0	52.3
G1067	52.3	100.0

Percent Identity Matrix

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	G3456	G2156
G3456	100.0	51.0
G2156	51.0	100.0

Percent Identity Matrix

	G3456	G1945
G3456	100.0	41.0
G1945	41.0	100.0

Percent Identity Matrix

	G3456	G3408
G3456	100.0	39.7
G3408	39.7	100.0